B Smith

github.com/Merlin04 | enby.land
Portland, OR

Education

Reed College | **Bachelor of Arts, Computer Science** | Minor in Music | Portland, OR | May 2026
Relevant coursework: PL Design/Implementation, Algorithms & Data Structures, Systems, Electroacoustic Composition

Skills

OCaml, Rust, C, C++, HTML/CSS, JavaScript, TypeScript, Node.js, React, web platform, embedded firmware, hardware, electrical engineering, KiCad, PCB design, prototyping, Onshape, CAD, Figma, SQL, Python, C#, PHP, Go, Git, Linux

Experience

Founder Intern | Framework Computer | San Francisco, CA | May–Aug 2024
Rapidly prototyped and developed a consumer electronics product from the ground up
- Conducted **product design**, market/user research, electrical engineering, software development, mechanical CAD
- Designed and routed **high-speed circuit board** using **KiCad**, sourced components, **manufactured** boards
- Developed **embedded firmware** using C and Zephyr RTOS
- Worked directly with Founder/CEO in a fast-paced cross-functional early stage **startup environment**
- Participated in **product development process** of Framework Laptop 13, Laptop 12, Desktop

Software Engineer I | Hack Club | Shelburne, VT | Dec 2023–Jan 2024, Jun–Aug 2023, Dec 2022–Jan 2023
Researched and developed open-source hardware/software/HCI projects to engage young people with making/hacking
- Collaborated with researchers at MIT on Modular Things, a framework for plug-and-play virtualized hardware (**coauthor** on paper, accepted to **ACM CHI '23** conference)
- Designed initial versions of Blot, an inexpensive, hackable drawing machine, in **Onshape CAD** + wrote supporting documentation to introduce students to digital fabrication
- Designed and built fully browser-based IDEs for Modular Things and Blot using **Next.js**, **React**, **TypeScript**

Web Developer | Gigantic | Seattle, WA | November 2021–August 2022
Developed internal tools, did client work at web agency for small-medium sized businesses
- Used **Next.js**, **React** to build a tool to automate image processing workflows for client sites. Increased team efficiency and reduced costs/dependence on third-party service
- Implemented designs in **Webflow** with **modern CSS**, **JavaScript** to deliver high-quality web experiences to clients
- Investigated and developed new revenue sources to improve long-term sustainability
- Developed **custom plugins** and **webapps** to fulfill client requirements
- Leveraged knowledge of **HTML/CSS/JS**, **React**. Quickly learned **Webflow**, **WordPress**, **PHP**

Teaching Assistant | CodeDay Labs | July–August 2021
- Mentored/advised college and high school students in software development, guided them through debugging
- Leveraged knowledge in a **vast array of technologies** and general SWE skills

Engineering Intern | Kernel Labs | Seattle, WA | September 2019–June 2021
Assisted with hardware/software R&D on robotics project & open source COVID ventilator
- Developed core product with **Python**, **machine learning** (**Keras**, **Numpy**, etc), **computer vision**
- Prototyped **PCBs** w/ **KiCad** & **electrical circuits**. Developed **embedded firmware** for microcontrollers in **C++**
- **Researched**, implemented alternative components and systems, improving cost-effectiveness and manufacturability
- Wrote reproducible support **documentation** to improve manufacturability
- Leveraged knowledge in **prototyping**, **embedded firmware**, **hardware design**, **ML**, **Python**

Founder | KeyPCB | Apr '18–'21 | Designed custom keyboard circuit boards on commission, manufactured and sold keyboard kits

Programming Intern | Bellevue School District | Nov '18–Jun '19 | Developed change management webapp for IT debugging

[see personal projects on portfolio website]